

Work Order ID 144520

April 19, 2016 2:44:16 PM

144520

Page 1

Item ID: D3186-3 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Spacepod Door, LH
 Start Date: 4/20/2016 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 7/5/2016 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: SLT Date: 20160426 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3186	Rev E								

100 0.00
 100 Small Fab
 Small Fab Memo 0.00
 Small Fab 1-Drill holes and cut out latch slots per dwg D3186 (D3186-3 detail)*** Trim and Fit***
 Primer B#133641 DAS 41 16-8-30 9-89
 110 QC5- Inspect part completeness to step on W/O 0.00
 110 QC Memo 0.00
 Quality Control
 120 Identify as per dwg & Stock Location: CA2 0.00
 120 Packaging Memo 0.00
 Packaging Location : CA2 PPR144519 9-89
 DAS 02 9-89 16-08-17
 DAS 16 9-89 16/08/31
 DAS 02 9-89 16-08-17

DQA:

Date: 09/22/2016



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: SEP 02 2016

Work Order update only ☐

Work Order: 144520		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. D3186-3		Rework ☒		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No.		Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☒			
Date :		Step #:		QTY Effective : 1			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition			Completed By		
FOUND FOUND repair by supplier and was not performed as per EIN 0350-600 section 3.4.3 and QSR 037 9.1				CARRY OUT REPAIR Latch hole repair performed by supplier was not performed as per EIN 350-600 3.4.3 and QSR 037 9.1 R/F NCR 16-5995			@ PDC NCR 16-5995 Lead hand / Supervisor Approval Verification S 16/08/30		
QC / QA Coordinator Approval				S 16/08/30					
Root Cause				FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

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Page 2

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Item Name: Spacepod Door, LH
Start Date: 4/20/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 7/5/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC21- Final Inspection - Work Order Release	0.00							
130									
QC	Memo	0.00							
Quality Control									

DAS
21
9-89 SEP 01 2016
Rem 16/08/31

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

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Page 1

Work Order ID: 144520

144520

Parent Item: D3186-3

D3186-3

Parent Item Name: Spacepod Door, LH

Start Date: 4/20/2016

Required Date: 7/5/2016

Start Qty: 1.00

Required Qty: 1.00

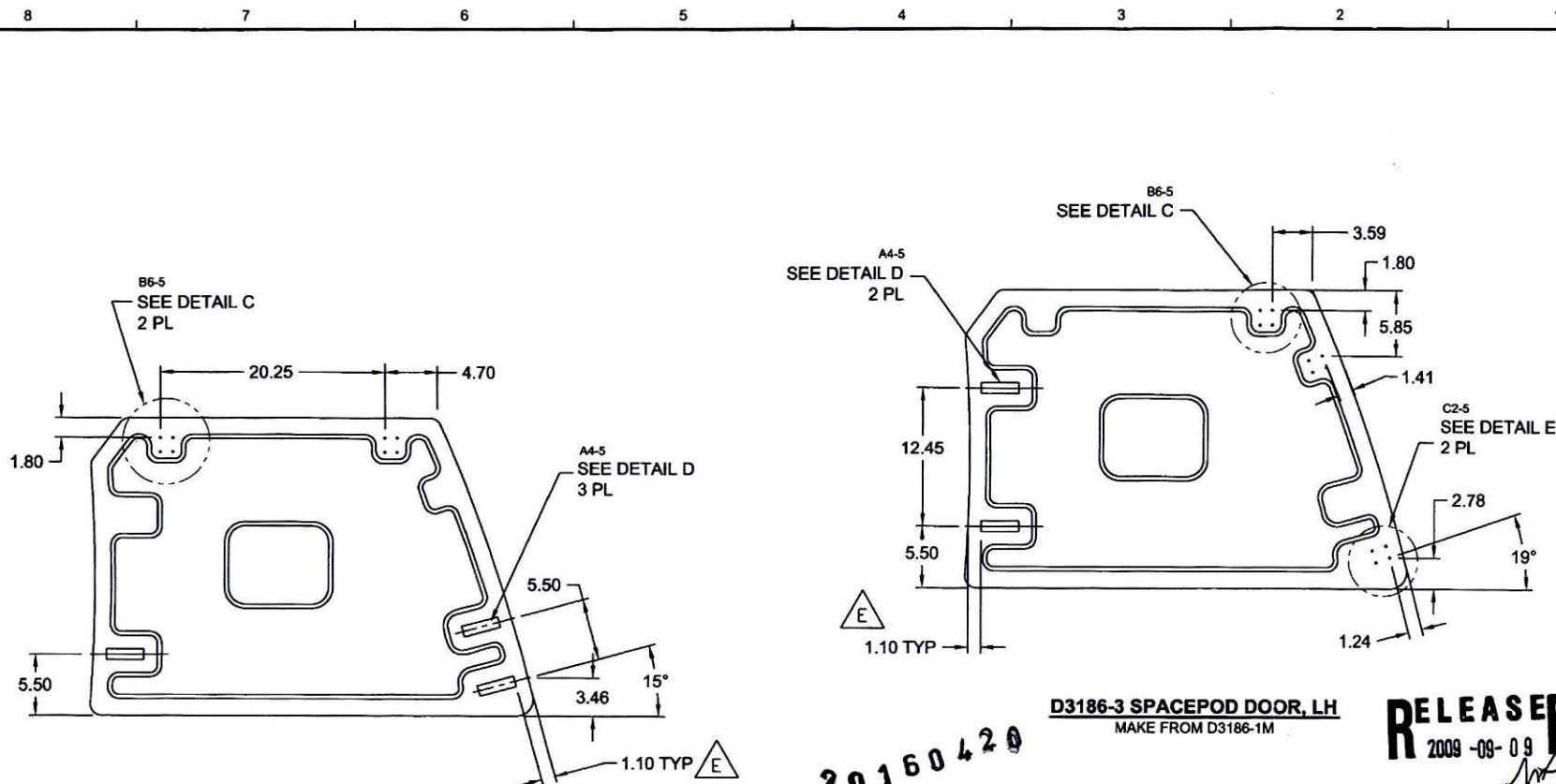
Comments: IPP Rev:A New Issue 07-01-11 EC
IPP rev B rev D dwg 07.03.07 ec

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3186-1M		Manufactured	No			100	Each	0.0000	1	1			
D3186-1M									**				
Spacepod Door LH													

144522

DAS
02
9-89

16-08-16



D3186-1 SPACEPOD DOOR, LH
MAKE FROM D3186-1M

D3186-3 SPACEPOD DOOR, LH
MAKE FROM D3186-1M

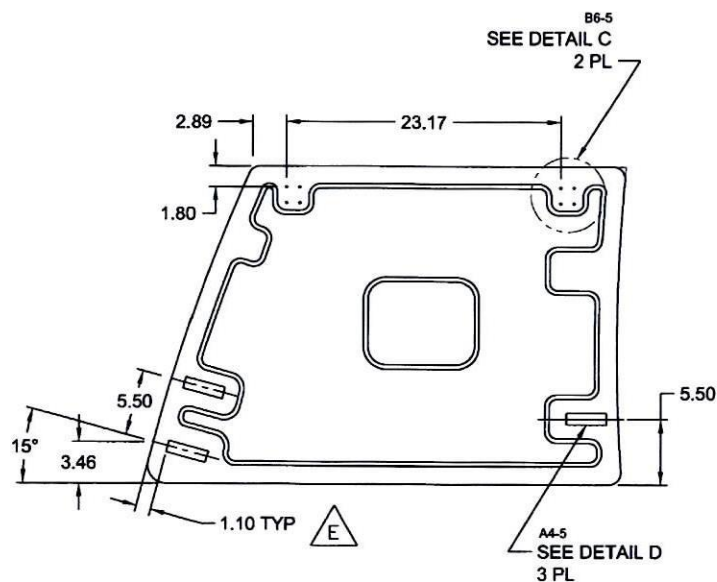
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2009-09-09

NOTES:

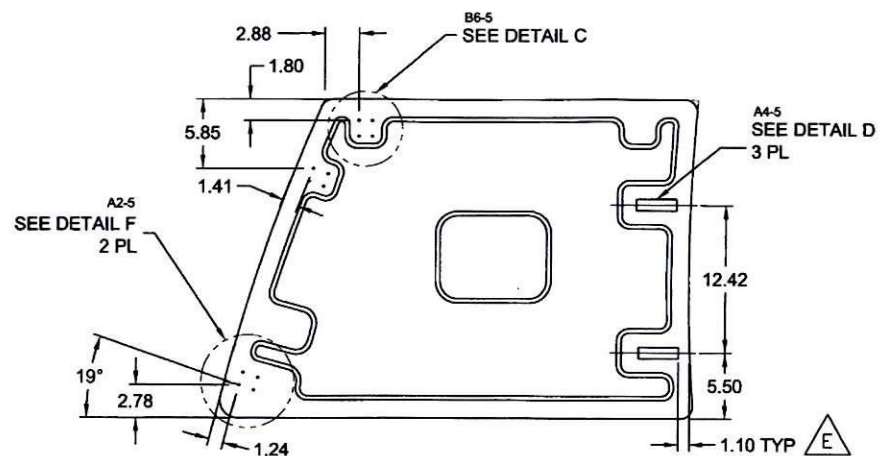
- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

20160420
SA
144520

REV.	DESCRIPTION	BY	DATE
E	DRAWING UPDATED TO CURRENT STANDARDS. 1.10 WAS 0.98 (ZN B5-1, B4-1, B7-2, B1-2); R0.12 WAS 0.125 (ZN B5-5); REF PAR 09-026	RF	09.07.08
D	UPDATE DIMENSIONS	LE	07.02.22
C	REMOVED D0600-XXX LABELS	LE	06.12.13
B	DIMS UPDATED TO MATCH PRODUCT FOAM PATTERN UPDATED D3186-1M/-2M/-3/-4 ADDED	LE	06.09.25
A	NEW ISSUE	CP	03.03.27
DESIGN	DS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	JP	DRAWING NO.	REV. E
MFG. APPR.	AS	D3186	SHEET 1 OF 5
APPROVED	AS	TITLE	SCALE
DE APPR.	AS	SPACEPOD DOOR	NTS
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D3186-2 SPACEPOD DOOR, RH
MAKE FROM D3186-2M



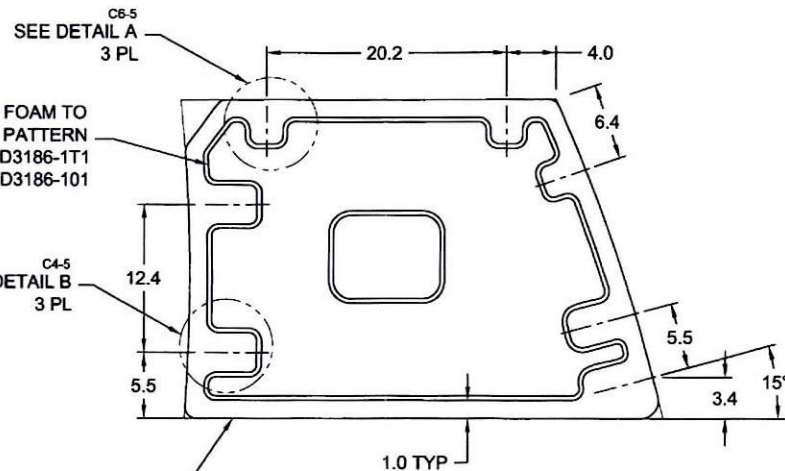
D3186-4 SPACEPOD DOOR, RH
MAKE FROM D3186-2M

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2009-09-09

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

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CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>[Signature]</i>	D3186	SHEET 2 OF 5
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DE APPR.	<i>[Signature]</i>	SPACEPOD DOOR	NTS
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D3186-1M SPACEPOD DOOR AS MOLDED

MAIN LAYUP

9 OZ SATIN (9 SQ FEET)
9 OZ SATIN (9 SQ FEET)
FOAM
9 OZ SATIN (9 SQ FEET)
12 OZ UNIDIRECTIONAL
9 OZ SATIN (9 SQ FEET)
RESIN (35-45% BY WEIGHT)
PEEL PLY

NOTES:

1) MATERIAL:

RESIN = EPOCAST 50-A/9816 OR DERAKANE 470-36/411/510A40
FOAM = 3/8", A500 CORE-CELL OR DIVINYCELL OR AIREX OR KLEGECELL
FIBRE = 9.7 OZ 7781 WEAVE "S" GLASS ("9 OZ SATIN")
12 OZ UNIDIRECTIONAL FIBERGLASS ("12 OZ UNIDIRECTIONAL")
LAMINATE PER DART QSI 006 4.0
LAMINATION SCHEDULE PER THIS DRAWING

2) FINISH: FINISH INSIDE/OUTSIDE WITH DUPONT HIGHBUILD GREY PRIMER 1144-S

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: NONE

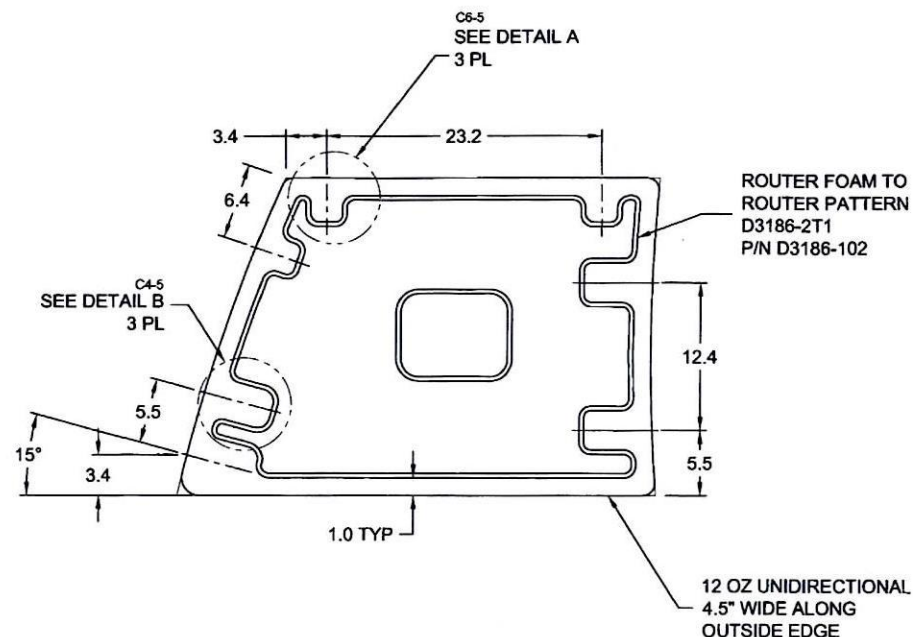
7) WEIGHT: 7.0 lbs

8) USE MOLD DT8005 FOR DOOR LAYUP

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2009-09-09

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MFG. APPR.		D3186	SHEET 3 OF 5
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DE APPR.		SPACEPOD DOOR	NTS
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9 OZ SATIN (9 SQ FEET)
9 OZ SATIN (9 SQ FEET)
FOAM
9 OZ SATIN (9 SQ FEET)
12 OZ UNIDIRECTIONAL
9 OZ SATIN (9 SQ FEET)
RESIN (35-45% BY WEIGHT)
PEEL PLY



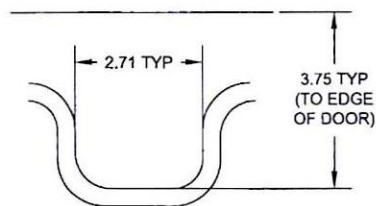
NOTES:
1) MATERIAL:

- RESIN = EPOCAST 50-A/9816 OR DERAKANE 470-36/411/510A40
FOAM = 3/8", A500 CORE-CELL OR DIVINYCELL OR AIREX OR KLEGECCELL
FIBRE = 9.7 OZ 7781 WEAVE "S" GLASS ("9 OZ SATIN")
12 OZ UNIDIRECTIONAL FIBERGLASS ("12 OZ UNIDIRECTIONAL")
LAMINATE PER DART QSI 006 4.0
LAMINATION SCHEDULE PER THIS DRAWING
- 2) FINISH: FINISH INSIDE/OUTSIDE WITH DUPONT HIGHBUILD GREY PRIMER 1144-S
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 7.0 lbs
8) USE MOLD DT8006 FOR DOOR LAYOUT

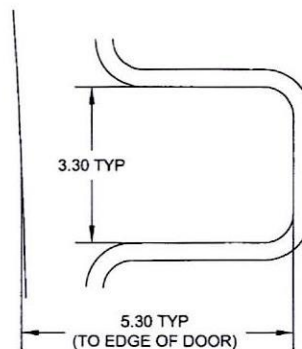
D3186-2M SPACEPOD DOOR AS MOLDED

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2009-09-09

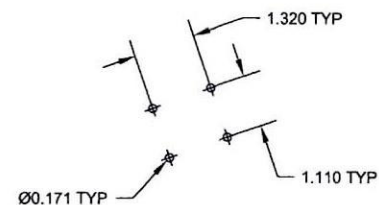
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MFG. APPR.	<i>[Signature]</i>	D3186	SHEET 4 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SPACEPOD DOOR	NT
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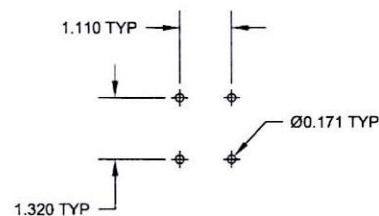
DETAIL A D6-3
SCALE 4X D4-4



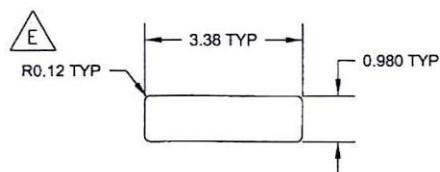
DETAIL B C6-3
SCALE 4X C6-4



DETAIL E C1-1
SCALE 4X

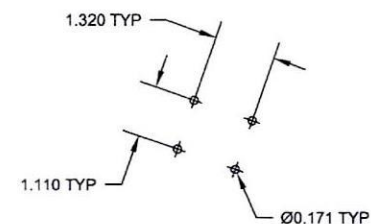


DETAIL C D7-1
SCALE 4X D3-1
D6-2
D3-2



NOTE: ENSURE THAT CUTOUT IS PERPENDICULAR TO EDGE OF DOOR

DETAIL D C5-1
SCALE 4X D4-1
B6-2
C2-2



DETAIL F C4-2
SCALE 4X

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2009-09-09

DESIGN	DS	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3186	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SPACEPOD DOOR	NT
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